Index

IEE Proceedings
Microwaves, Antennas and Propagation

Vol. 149, 2002

Author Index

A

Al-Nuaimi, M.O. p181
Ammann, M.J. p200
Ando, T. p92
Austin, B.A. p147

B

Benjamin, R. p194
Billon, T. p253
Brown, A.D. p33
Bu, H. p71
Bucci, O.M. p119

C

Cabon, B. p253
Caplin, M. p129
Chen, Z.N. p200
Chia, M.Y.W. p200
Chill, C.-W. p11
Chou, H.-T. p1
Chuma, J.M. p53
Chumachenko, V.P. p229
Civi, O.A. p1
Cook, G.G. p211
Craddock, I.J. p23
Cullen, A.L. p189

D

D'Agostino, F. p119
de los Reyes, E. p218
Donnan, R.S. p160

E

Economou, L. p41
Eker, S. p229

F

Fernandez-Pascual, A. p218
Filipovic, D.S. p98
Fujimoto, K. p85
Furuuchi, H. p85
Fusco, V. p261
Fusco, V.F. p169, p271

G

Gabriel, C. p218
Gennarelli, C. p119
Goto, N. p7
Grace, D. p124
Griffiths, H.D. p189

H

Helszajn, J. p129
Ho, H.-K. p1

J

Jacob, A.F. p106
Jokanovic, B. p257

K

Kalinin, V.A. p153
Karkkainen, K. p248
Kempel, L.C. p33
Konefal, T. p124
Kooi, P.-S. p50
Koshio, T. p7
Kumon, Y. p17
Kuo, J.-T. p243

L

Lakhtakia, A. p138
Langley, R.J. p41
Leat, C.J. p204
Lee, J. p7
Li, L.-W. p50
Li, R.L. p169
Li, Z. p175
Lissel, E. p106
Liu, W.C. p147

M

Martin, D.H. p160
Martin-Cuerdo, R. p113
Martinez-Gonzalez, A.M. p218
Mazur, J. p286, p291
Mazur, M. p286, p291
McErlean, E. p45
Metz, C. p106
Miao, M. p50
Michalski, J. p286, p291
Mirshekar-Syahkal, D. p53, p237
Mohammad-Taheri, M. p237
Morishita, H. p85

N

Nakano, H. p92
Nakatsuka, K. p280
Nepa, P. p1
Nilavalan, R. p23

O

Ooi, L.B. p50
Ouisse, T. p253

P

Papalambros, P.Y. p175
Parini, C.G. p160
Pathak, P.H. p1

R

Rahman, M. p141
Railton, C.J. p23
Rao, P.H. p261
Rayner, M.R. p160
Reljic, B. p257
Riccio, G. p119
Rieckmann, C. p160
Ringhofer, K.H. p153
Royet, A.S. p253
Rozeau, O. p253

S

Safavi-Naieni, S. p237
Sanchez-Hernandez, D. p218
Sangster, A.J. p45
Savarese, C. p119
Scott, H. p271
Sedek, E. p291
See, T.S.P. p200
Segovia-Vargas, D. p113
Shafai, L. p64
Shamonina, E. p153
Shih, E. p243
Stamarou, A.G. p181
Sierra-Perez, M. p113
Solymar, L. p153
Spillard, C. p124
Stange, L.C. p106
Starke, P.L. p211
Stuchly, M. p248
Stuchly, M.A. p141
Sze, K.Y. p64

T

Tan, E.L. p57, p78
Tarapov, S.I. p229
Trifunovic, V. p257
Tsounis, B. p129
Tsukiji, T. p17

V

Van Loock, W. p218
Vandenbosch, G.A.E. p265
Volakis, J.L. p33, p98, p175
Vrancken, M. p265

W

Weiglhofer, W.S. p138
Wu, B. p50
Wu, K. p71

Y

Yamasaki, M. p17
Yamauchi, J. p92
Yang, X.X. p275
Yin, W.-Y. p50

Z

Zhang, K. p28
Zhao, G.Q. p275
Zhong, S.S. p275
Zhou, H. p28
Zhu, L. p71

ANTENNA ACCESSORIES

Rectangular dielectric-rod fed by metallic waveguide p92

ANTENNA ARRAYS

Analysis of the dual-polarised patch antenna and two-element array by FDTD p275
Design method for antenna arrays employing ferrite printed transmission line phase shifters p33
Efficient hybrid discrete Fourier transform-moment method for fast analysis of large rectangular arrays p1
Frequency selective surface as a polarisation transformer p248
Hybrid dyadic-mixed potential integral equation analysis of 3-D planar circuits and antennas p265
Multiplicatively processed antenna arrays for DBF radar applications p106
Mutual coupling effects correction in microstrip arrays for direction-of-arrival (DOA) estimation p113
Optimisation of an unequally spaced dual-band printed base station antenna array using a marginal distribution technique p211
Phase properties of single-layer patch arrays with applications to line-source-fed microstrip reflectarrays p64
Sidelobe response of antennas to short pulses. 1. Theory p189
Sidelobe response of antennas to short pulses. 2. Manifestations and applications p194

ANTENNA THEORY

Double-folded monopole antenna using parallel line or coaxial cable p17
Frequency selective surface design by integrating optimisation algorithms with fast full wave numerical methods p175
Mutual coupling effects correction in microstrip arrays for direction-of-arrival (DOA) estimation p113
Novel modular approach based on Gaussian beam diffraction for analysing quasi-optical multi-reflector antennas p160
Optimisation of an unequally spaced dual-band printed base station antenna array using a marginal distribution technique p211
Phase properties of single-layer patch arrays with applications to line-source-fed microstrip reflectarrays p64
Probe compensated far-field reconstruction by near-field planar spiral scanning p119
Rectangular dielectric-rod fed by metallic waveguide p92
Self-diplexing antenna using the square patch with a hole p7
Short dipole as a receiver: effective aperture shapes and streamlines of the Poynting vector p153
Sidelobe response of antennas to short pulses. 1. Theory p189
Sidelobe response of antennas to short pulses. 2. Manifestations and applications p194

ARRAY SIGNAL PROCESSING

Multiplicatively processed antenna arrays for DBF radar applications p106
Mutual coupling effects correction in microstrip arrays for direction-of-arrival (DOA) estimation p113
Sidelobe response of antennas to short pulses. 2. Manifestations and applications p194

BIOMEDICAL ENGINEERING

Practical procedure for verification of compliance of digital mobile radio base stations to limitations of exposure of the general public to electromagnetic fields p218

CABLES AND OVERHEAD LINES

Double-folded monopole antenna using parallel line or coaxial cable p17

CAPACITORS

Experimental characterisation and modelling of on-chip capacitors and resistors on GaAs substrates p50

CIRCUIT COMPONENTS

Experimental characterisation and modelling of on-chip capacitors and resistors on GaAs substrates p50

CIRCUIT THEORY AND DESIGN

Characterisation and modelling of coplanar transmission lines on SiC substrates p253
Experimental characterisation and modelling of on-chip capacitors and resistors on GaAs substrates p50

ELECTROMAGNETIC FIELDS

Design method for antenna arrays employing ferrite printed transmission line phase shifters p33
Vector wave function expansions of dyadic Green's functions for bianisotropic media p57

ELECTROMAGNETIC WAVES

Analytical investigation of electromagnetic waves in bianisotropic media p138
Design method for antenna arrays employing ferrite printed transmission line phase shifters p33
Efficient hybrid discrete Fourier transform-moment method for fast analysis of large rectangular arrays p1
Frequency selective surface as a polarisation transformer p248
Parallel- and cross-polarisation backscattering cross-sections of a conducting circular cylinder of finite length for a circularly polarised incident wave p280
Quantifying numerical dispersion in non-orthogonal FDTD meshes p23
Scattering in a section of ferrite-coupled microstrip lines: theory and application in nonreciprocal devices p286

ELECTROMAGNETISM

Electrostatic Green's functions for planar multilayered anisotropic media p78
Magnetic suspension for micro-actuators using microwave cavity resonators p45

ENGINEERING COMPUTING

Experimental characterisation and modelling of on-chip capacitors and resistors on GaAs substrates p50

ERRORS AND ERROR ANALYSIS

Quantifying numerical dispersion in non-orthogonal FDTD meshes p23

FILTERS AND FILTERING

Broadband and compact multi-pole microstrip bandpass filters using ground plane aperture technique p71
Effects of walls on coupling between coupled combline resonators p53
Sidelobe response of antennas to short pulses. 2. Manifestations and applications p194
Sixth-order elliptic function filter using triple-mode dielectric-loaded cylindrical cavities p237
Wideband bandpass filter design with three-line microstrip structures p243

INTEGRATED CIRCUITS

Experimental characterisation and modelling of on-chip capacitors and resistors on GaAs substrates p50

MATHEMATICAL TECHNIQUES

Hybrid dyadic-mixed potential integral equation analysis of 3-D planar circuits and antennas p265

MEASUREMENT OF SPECIFIC VARIABLES

Characterisation and modelling of coplanar transmission lines on SiC substrates p253

MICROMECHANICAL DEVICE TECHNOLOGY

Magnetic suspension for micro-actuators using microwave cavity resonators p45

MICROWAVE CIRCUITS

Experimental characterisation and modelling of on-chip capacitors and resistors on GaAs substrates p50

MICROWAVE MEASUREMENT TECHNIQUES

Characterisation and modelling of coplanar transmission lines on SiC substrates p253

MICROWAVE TECHNOLOGY

Design method for antenna arrays employing ferrite printed transmission line phase shifters p33
Isolator using a ferrite-coupled-lines gyrator p291
Mode characteristics in a circular chiral ferrite dielectric waveguide p28
Scattering in a section of ferrite-coupled microstrip lines: theory and application in nonreciprocal devices p286

MOBILE RADIO

Dual band hybrid vehicular telephone antenna p41
Effects of walls on coupling between coupled combline resonators p53
Optimisation of an unequally spaced dual-band printed base station antenna array using a marginal distribution technique p211
Performance of balance-fed antenna system for handsets in the vicinity of a human head or hand p85
Practical procedure for verification of compliance of digital mobile radio base stations to limitations of exposure of the general public to electromagnetic fields p218
Self-diplexing antenna using the square patch with a hole p7

NUMERICAL ANALYSIS

Analysis of the dual-polarised patch antenna and two-element array by FDTD p275
Circularly polarised patch antenna with periodic structure p141
Design method for antenna arrays employing ferrite printed transmission line phase shifters p33
Efficient hybrid discrete Fourier transform-moment method for fast analysis of large rectangular arrays p1
Electrostatic Green's functions for planar multilayered anisotropic media p78
Equivalent circuit parameters of coplanar stripline discontinuities p11
Frequency selective surface as a polarisation transformer p248
Frequency selective surface design by integrating optimisation algorithms with fast full wave numerical methods p175
Hybrid dyadic-mixed potential integral equation analysis of 3-D planar circuits and antennas p265
Mode characteristics in a circular chiral ferrite dielectric waveguide p28

Mutual coupling effects correction in microstrip arrays for direction-of-arrival (DOA) estimation p113
Probe compensated far-field reconstruction by near-field planar spiral scanning p119
Quantifying numerical dispersion in non-orthogonal FDTD meshes p23
Rectangular dielectric-rod fed by metallic waveguide p92
Resistively loaded helical antennas for ground-penetrating radar p204
Vector wave function expansions of dyadic Green's functions for bianisotropic media p57
Wideband bandpass filter design with three-line microstrip structures p243

OPTIMISATION

Frequency selective surface design by integrating optimisation algorithms with fast full wave numerical methods p175
Optimisation of an unequally spaced dual-band printed base station antenna array using a marginal distribution technique p211

RADAR AND RADIONAVIGATION

Multiplicatively processed antenna arrays for DBF radar applications p106
Resistively loaded helical antennas for ground-penetrating radar p204

RADIO SYSTEMS

Coherence bandwidth characterisation and estimation for indoor Rician multipath wireless channels using measurements at 62.4GHz p181
Self-diplexing antenna using the square patch with a hole p7
Site diversity for high-altitude platforms: a method for the prediction of joint site attenuation statistics p124

RADIOWAVE PROPAGATION

Coherence bandwidth characterisation and estimation for indoor Rician multipath wireless channels using measurements at 62.4GHz p181
Phase properties of single-layer patch arrays with applications to line-source-fed microstrip reflectarrays p64
Site diversity for high-altitude platforms: a method for the prediction of joint site attenuation statistics p124

SEMICONDUCTOR DEVICES

Electronic beam tilting using a single reactively loaded circular wire loop antenna p271

SENSORS AND ACTUATORS

Magnetic suspension for micro-actuators using microwave cavity resonators p45

SIGNAL PROCESSING

Multiplicatively processed antenna arrays for DBF radar applications p106
Mutual coupling effects correction in microstrip arrays for direction-of-arrival (DOA) estimation p113

SINGLE ANTENNAS

Annular planar monopole antennas p200
Assessment of vehicle-mounted antennas for NVIS applications p147
Beam steered reactively loaded printed microstrip loop antennas p169
Broadband meanderline slot spiral antenna p98
Circularly polarised patch antenna with periodic structure p141
Double-folded monopole antenna using parallel line or coaxial cable p17
Dual band hybrid vehicular telephone antenna p41
Electronic beam tilting using a single reactively loaded circular wire loop antenna p271
Novel modular approach based on Gaussian beam diffraction for analysing quasi-optical multi-reflector antennas p160
Performance of balance-fed antenna system for handsets in the vicinity of a human head or hand p85
Practical procedure for verification of compliance of digital mobile radio base stations to limitations of exposure of the general public to electromagnetic fields p218
Printed backfire wideband circularly polarised tapered gap loop antenna p261
Probe compensated far-field reconstruction by near-field planar spiral scanning p119
Rectangular dielectric-rod fed by metallic waveguide p92
Resistively loaded helical antennas for ground-penetrating radar p204
Self-diplexing antenna using the square patch with a hole p7
Short dipole as a receiver: effective aperture shapes and streamlines of the Poynting vector p153

SONAR

Sidelobe response of antennas to short pulses. 2. Manifestations and applications p194

TRANSMISSION LINE THEORY

Balance measurements in double-Y baluns p257
Characterisation and modelling of coplanar transmission lines on SiC substrates p253
Double-folded monopole antenna using parallel line or coaxial cable p17
Effects of walls on coupling between coupled combline resonators p53

WAVEGUIDE COMPONENTS

Balance measurements in double-Y baluns p257
Broadband and compact multi-pole microstrip bandpass filters using ground plane aperture technique p71
Effects of walls on coupling between coupled combline resonators p53
Frequency selective surface as a polarisation transformer p248
Isolator using a ferrite-coupled-lines gyrator p291
Magnetic suspension for micro-actuators using microwave cavity resonators p45
Scattering in a section of ferrite-coupled microstrip lines: theory and application in nonreciprocal devices p286
Sixth-order elliptic function filter using triple-mode dielectric-loaded cylindrical cavities p237
Wideband bandpass filter design with three-line microstrip structures p243
WR75 junction circulator using 90° and 180° ridge UEs p129

WAVEGUIDE THEORY

Equivalent circuit parameters of coplanar stripline discontinuities p11
Magnetic suspension for micro-actuators using microwave cavity resonators p45
Mode characteristics in a circular chiral ferrite dielectric waveguide p28
Probe compensated far-field reconstruction by near-field planar spiral scanning p119
Scattering by a lossy dielectric cylinder in a waveguide cross-junction p229
WR75 junction circulator using 90° and 180° ridge UEs p129

WAVEGUIDES

Characterisation and modelling of coplanar transmission lines on SiC substrates p253
Equivalent circuit parameters of coplanar stripline discontinuities p11
Mode characteristics in a circular chiral ferrite dielectric waveguide p28
Scattering in a section of ferrite-coupled microstrip lines: theory and application in nonreciprocal devices p286